

Amendments to and Listing of the Claims:

Please amend claim 1, so that the claims read as follows:

1. (Currently Amended) A three-dimensional object comprising a plurality of cured resin layers accumulated to each other, each of the cured resin layers having a shaped pattern formed by irradiating a molding surface of an actinic radiation-curable resin composition with an actinic radiation,

wherein the three-dimensional object comprises at least one cured resin layer comprising a sea-island microstructure in which island components are dispersed in a sea component comprising a cured polymer, the island components comprise a polymer differing from the cured resin constituting the sea component, the island components are fine island components having a particle diameter of 20 to 2,000 nm, and the polymer constituting the island components is a polyalkylene ether compound having a number average molecular weight of 500 to 10,000.

2. (Original) The three-dimensional object as claimed in claim 1, wherein all of the plurality of cured resin layers constituting the three-dimensional object have the sea-island microstructure in which island components are dispersed in a sea component comprising a cured polymer, the island components comprise a polymer differing from the cured resin constituting the sea component, and the island components are fine island components having a particle diameter of 20 to 2,000 nm.

3. (Previously Presented) The three-dimensional object as claimed in claim 1, wherein each of the cured resin layers constituting the three-dimensional object has a thickness of 10 to 500 μm .

4. (Canceled)

5. (Canceled)

6. (Previously Presented) The three-dimensional object as claimed in claim 1,

wherein each of the cured resin layers having the sea-island microstructure has a sum of the island components of 1 to 30 % by mass with respect to the mass of the each of the cured resin layers.

7. (Previously Presented) The three-dimensional object as claimed in claim 1, wherein the polymer constituting the island components has a glass transition temperature of lower than 40°C.

8. (Canceled)

9. (Previously Presented) The three-dimensional object as claimed in claim 1, wherein the sea component comprises the cured resin formed by using at least one actinic radiation-polymerizable compound selected from the group consisting of a cationic-polymerizable organic compound capable of undergoing cationic polymerization upon irradiation with an actinic radiation and a radical-polymerizable organic compound capable of undergoing radical polymerization upon irradiation with an actinic radiation.

10. (Previously Presented) The three-dimensional object as claimed in claim 1, wherein the sea component comprises the cured resin formed by using both of a cation-polymerizable organic compound and a radical-polymerizable organic compound.

11. (Previously Presented) The three-dimensional object as claimed in claim 9, wherein the cation-polymerizable organic compound is a compound having an epoxy group, and the radical-polymerizable organic compound is a compound having a (meth)acryl group.

12. (Previously Presented) A method of producing a three-dimensional object having a sea-island microstructure as claimed in claim 1, which comprises:

irradiating a molding surface of an actinic radiation-curable resin composition with an actinic radiation to form a cured resin layer having a shape pattern; and

repeating a fabricating procedure comprising: providing an actinic radiation-

curable resin composition for one layer on a cured resin layer to form a molding surface; and irradiating the molding surface with an actinic radiation to form a cured resin layer having a shape pattern, so as to produce the three-dimensional object comprising a plurality of cured resin layers accumulated,

wherein the fabricating procedure is performed by using an actinic radiation-curable resin composition comprising a homogeneous mixture of

a) at least one actinic radiation-polymerizable compound as the cured resin of the sea component, selected from the group consisting of a cationic-polymerizable organic compound capable of undergoing cationic polymerization upon irradiation with an actinic radiation and a radical-polymerizable organic compound capable of undergoing radical polymerization upon irradiation with an actinic radiation

with

b) a polyalkylene ether compound having a number-average molecular weight of 500 to 10,000 as the polymer to become polymeric island components, wherein the polymeric island components have a particle diameter of 20 to 2,000 nm upon irradiation.

13. (Canceled)

14. (Previously Presented) The method as claimed in claim 12, wherein the cationic polymerizable organic compound is a compound having an epoxy group, and the radical polymerizable organic compound is a compound having a (meth)acryl group.

15. (Previously Presented) The method as claimed in claim 12, wherein a content of the polymer to become the polymeric island components is from 1 to 30 % by mass with respect to the mass of the actinic radiation-curable resin composition used for forming the cured resin layer having the sea-island microstructure.

16. (Previously Presented) The method as claimed in claim 12, wherein the actinic radiation-curable resin composition comprises an oxetane compound together with a cationic-polymerizable organic compound having an epoxy group.

17. (Previously Presented) A three-dimensional object comprising a plurality of cured resin layers accumulated to each other, each of the cured resin layers having a shaped pattern formed by irradiating a molding surface of an actinic radiation-curable resin composition with an actinic radiation,

wherein the three-dimensional object comprises at least one cured resin layer comprising a sea-island microstructure in which island components are dispersed in a sea component comprising a cured polymer, the island components comprise a polymer differing from the cured resin constituting the sea component, the island components are fine island components having a particle diameter of 20 to 2,000 nm,

and wherein the island components in each of the cured resin layers having the sea-island microstructure do not exist in an upper portion of each of the cured resin layers, the upper portion being located in an actinic radiation-irradiated surface of each of the cured resin layers, but do exist in a portion extending from a bottom part of each of the cured resin layers to an upward part along the thickness of each of the cured resin layers.

18. (Previously Presented) The three-dimensional object as claimed in claim 17, wherein the upper portion containing no island component has a thickness of 2 to 10% with respect to the thickness of the each of the cured resin layers.

19. (Previously Presented) The three-dimensional object as claimed in claim 17, wherein each of the cured resin layers having the sea-island microstructure has a sum of the island components of 1 to 30 % by mass with respect to the mass of the each of the cured resin layers.

20. (Previously Presented) The three-dimensional object as claimed in claim 17, wherein the polymer constituting the island components is a polyalkylene ether compound

Application No. 10/561,673

Reply to Notice of Allowance dated November 5, 2007

having a number average molecular weight of 500 to 10,000.

21. (Previously Presented) The three-dimensional object as claimed in claim 17, wherein the sea component comprises the cured resin formed by using both of a cation-polymerizable organic compound and a radical-polymerizable organic compound.